

# URBAN FOREST CONSERVATION (FOR1575H-F) - Fall 2018

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**Course Instructor:** Sandy M Smith ([s.smith.a@utoronto.ca](mailto:s.smith.a@utoronto.ca)), Professor  
ESC 2011; *Email to set up meetings.*

**Course TA:** Justin Gaudon ([justin.gaudon@mail.utoronto.ca](mailto:justin.gaudon@mail.utoronto.ca))  
PhD Student (Forestry)

**Class Schedule:** **Fall, Wednesdays 4-7pm, GB (Galbraith Building), Room 405**  
**Undergrad formal lectures 4-6pm**  
**Grad informal & meeting guest lecturers 6-7pm**

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## Course Description

Imagine a city without green space – no street trees, no grass, no front yards, no parks – a true concrete jungle. Such a city does not exist in the world as there is always some private properties with a backyard and a bit of lawn or trees. Most Canadians live in urban centres, like Toronto, and most Canadian cities have a great variety of green infrastructure on both public and private land.

This course introduces graduate students to some of the challenges and opportunities that planners, and managers are faced with in their efforts to sustain and enhance the supply of environmental, economic, and social benefits derived from green urban infrastructure, and especially urban forests. The emphasis of this course for graduate students is on urban forest management planning, however, the lecture series focus on the importance of vigorous tree inventories as part of such plans, and cover diverse topics surrounding the functions, benefits, value, and challenges of green urban infrastructure and urban forest conservation. The lectures are organized in conjunction with the undergraduate course, however, they will provide a comprehensive background for graduate students unfamiliar with this field. Guest lectures will be given by experts from different institutions, spanning topics from green roofs, design and engineering, to policy, and where possible, will be encouraged to stay after the formal lecture to interact with graduate students.

There will be no final exam in this class but the multiple assignments are challenging and are aimed at improving students' ability to work in multidisciplinary teams to produce a final, client-based, comprehensive written report and professional-level presentation.

## Course Objectives

The course will provide students with an opportunity to:

- 1) Understand the environmental and socio-economic roles of the urban forest;
- 2) Develop an understanding of planning and policy approaches to the conservation of urban forests;
- 3) Identify the issues, challenges and opportunities around green infrastructure in cities; and
- 4) Being challenged with integrative tasks that they may encounter in the working world.

## ASSIGNMENTS URBAN FOREST CONSERVATION (FOR1575H-F) 2018

*The Canadian Urban Forest Strategy defines urban forests as: "...trees, forests, greenspace and related abiotic, biotic and cultural components in and around cities and communities. It includes trees, forest cover and related components in the surrounding rural areas (peri-urban forests)."*

Today, almost all cities understand the importance of incorporating green urban infrastructure into their planning and management. This course will introduce students to some of the challenges and opportunities that planners and managers are faced with in their efforts to sustain and enhance the supply of environmental, economic and social benefits derived from urban forests. In particular, it will help better understand the great opportunity for urban forest management planning in the context of community engagement. The protection and enhancement of urban forests can only be accomplished effectively through the implementation of a comprehensive urban forest management plan. The development of such a plan is also an excellent way to integrate many aspects of urban forest management discussed in the course. An excellent place to start to appreciate the scope and context of urban forestry in Canada is on this national website for Tree Canada: <https://treecanada.ca/en/programs/urban-forests/>.

### Course Evaluation

The assignment of marks in this course is intended to determine how well each student has progressed towards the objectives of the course. Consequently, each mark will be based on the student's aptitude to demonstrate an ability to:

- 1) Analyze and synthesize the information in a scientific manner;
- 2) Apply original, critical thought to the issues;
- 3) Communicate his/her thoughts in writing and/or orally; and
- 4) Work in a team towards a specific goal.

The major assignment for graduate students in this course is to develop a comprehensive Urban Forest Management Plan for one specific site. Each student will be an equal partner in a group of 3-5 students, working as a team, to develop a strategic urban forestry plan for a "community" and location of their choice. The different components of the course (Assignments 1, 2, 3, 4) and lectures are meant to help with the development of the plan and to make sure that students are 'on track' and effectively work together as a team towards the major goal.

Below is a list of potential projects this year with their contact. Please contact the instructor once teams have been established and a project selected (*highly recommended to do this in Week 1*).

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|--|---|
| 1) Sanofi Pasteur, Toronto             | (Murray Fulmer, <a href="mailto:Murray.Fulmer@sanofi.com">Murray.Fulmer@sanofi.com</a> )                |
| 2) York Cemetery, Toronto              | (Jeff McMann, <a href="mailto:jmcmann@mountpleasantgroup.com">jmcmann@mountpleasantgroup.com</a> )      |
| 3) Chedoke, Hamilton, Ontario          | (Thomas Wicks, <a href="mailto:Thomas.Wicks@heritagetrust.on.ca">Thomas.Wicks@heritagetrust.on.ca</a> ) |
| 4) Long Branch Community, Toronto      | (Judy Gibson, <a href="mailto:judy.gibson@lbna.ca">judy.gibson@lbna.ca</a> )                            |
| 5) Sunnybrook Health Sci. Ctr, Toronto | Rohan Harrison, <a href="mailto:Rohan.Harrison@sunnybrook.ca">Rohan.Harrison@sunnybrook.ca</a> )        |
| 6) Harbord Village (HVRA), Toronto     | (Sue Dexter, <a href="mailto:asusan.dexter@gmail.com">asusan.dexter@gmail.com</a> )                     |
| 7) Escarpment Biosphere Conservancy    | (Bob Barnett, <a href="mailto:rbarnett@escarpment.ca">rbarnett@escarpment.ca</a> )                      |
| 8) Downsview Park, Toronto             | (Grace Taurozzi, <a href="mailto:grace.taurozzi@bgis.com">grace.taurozzi@bgis.com</a> )                 |

## Grading and Due Dates

Marks will be assigned to both individual and group components within each component of the Urban Forest Management Plan. Each mark (assignments, presentations) will be based on a student's ability to demonstrate:

- 1) Analysis and synthesis of the information in a scientific manner;
- 2) Application of original, critical thought to the issues; and
- 3) Effective communication of his/her thoughts in writing and orally, both in informal discussions and formal presentations.

Assignment	Due Date	Mark
1) Report to Council	10 October	15% (individual)
<b>**NOTE: All-Day Field Tour</b>	<b>CITY OF TORONTO</b>	<b>12 OCTOBER</b>
2) Progress Report & Meeting Participation	5 December On-going to 29 November	15% (group) 15% (individual)
3) Presentation of Plan	*13 December	20% (group)
4) Final Written Plan Report	16 December	35% (group)
<b>Total course marks</b>		<b>100%</b>

**Note:** \* Outside regular class hours

**\*\*Assignments are to be submitted electronically to Quercus by midnight on the due date. Late assignments will be penalized 10% per week day up to 40% max, unless discussed with the instructor. Single-spaced 12pt font in PDF format is required for the Final Plan Report.**

### Deneke defined urban forestry as:

*"...the sustained planning, planting, protection, maintenance, and care of trees, forests, greenspace and related resources in and around cities and communities for economic, environmental, social, and public health benefits for people. The definition includes retaining trees and forest cover as urban populations expand into surrounding rural areas and restoring critical parts of the urban environment after construction.*

*Expansion at the urban/rural interface raises environmental and public health and safety concerns, as well as opportunities to create educational and environmental links between urban people and nature. In addition, urban and community forestry includes the development of citizen involvement and support for investments in long-term on-going tree planting, protection, and care programs."*

## **Assignment 1: Report to Council (15%)**

### **Objectives:**

The Report to Council is intended to provide the motivation to support the development of a Strategic Urban Forest Plan by staff in a municipal department for your community.

### **The Task:**

Each student must convince the Council (or a similar management board) of their community that the development of a Strategic Urban Forest Plan is worthy of support, along with the necessary allocation of resources to achieve its aspirations. The Report should address: a) why a plan is necessary; b) what it will consist of; c) who will prepare it and for whom (who will implement it); d) where it will apply; e) when and how it will be prepared; and f) the duration it will be applicable.

The Report must convince Council that such an effort to develop a plan is worthwhile. It should be concise but thorough, not exceeding 1,500 words and is **due on Quercus by midnight 10 October**. Please submit in electronic (PDF) format.

### **Evaluation:**

The individual assignment is worth 15% of the course and will be evaluated based on:

Knowledge	25%
Analysis, Synthesis and Application	25%
Critical Thought	10%
Communication	20%
Organization	20%

## **Assignment 2: Meeting Participation (15%) & Progress Report (15%)**

### **Objectives:**

The Progress Report is intended to help students keep track of their progress of the major assignment and self-evaluate the participation of the group members. The mark for the meeting participation is intended to make sure that group members contribute to the progress of the Urban Forest Management plan more or less equally, as is expected in a group with a common goal.

### **The Task:**

Over the term, each group will arrange for a number of planning meetings to take place (at minimum, this should be equal to the number of team members) to work on the Urban Forest Management Plan. Each team member will 'lead/chaire' at least one of these meetings and be responsible for submitting their minutes as part of this report. All members of the group are expected to be present and actively participate in the meetings.

**The regular group meetings should address: (1) accomplishments to date, (2) future milestones, anticipated accomplishments (with approximate dates when expected to be achieved), (3) tasks, including who will do what and when as well as when the task will be completed, and (4) potential threats or specific barriers to accomplishing certain milestones or tasks (with an explanation as to how these might be addressed).**

The Chair is expected to structure, lead, and summarize the meeting by: (1) sending out an agenda in advance, (2) running the meeting in an efficient manner, and (3) getting the final minutes out in a timely fashion. Wherever possible, the Chair must also attempt to facilitate the meeting by ensuring that: (i) the time each person speaks is fair, (ii) the group moves through the agenda efficiently; and (iii) Action Items with dates are assigned within each group.

The instructor will participate in at least one of these meetings as an observer to provide feedback and assessment. The participation of all team members will be assessed at these meetings. Progress reports, in the form of the compiled written minutes for each meeting date, should not exceed 2,000 words and should be **submitted in electronic format (PDF) on Quercus by midnight 5 December**. They should clearly identify who was present or absent at the meeting, tasks assigned and completed, and who chaired the meeting.

### **Evaluation:**

**Meeting participation** is worth 15% of the course and will be evaluated through two components (a) attendance to meetings (60%) as assessed by the report and (b) active participation (40%) as assessed during the visit of the instructor.

The **Progress Report** is also worth 15% of the course and will be evaluated through a group and an individual component as follows:

<b>Group component</b>		<b>Individual component</b>	
Completeness of the report	30%	Completeness of the chaired section	20%
Analysis, Synthesis and Application	20%	Organization	10%
Critical Thought	10%	Communication	10%

### **Assignment 3: Urban Forest Management Plan – Presentation (20%)**

#### **Objectives:**

Oral presentation is a very effective tool to communicate the main results of a study to a specific audience, which is often used in a working environment. This assignment is meant to give students the opportunity to practice oral presentations and receive feedback for improvement, while at the same time give classmates and ‘community managers’ (who provided the information on which the plans are based) the chance to see the results.

#### **The Task:**

Each team will present their plan to the class and outside observers from their community. Details of timing will be announced when the teams have been formed but it will be preferably during class time.

#### **Evaluation:**

The assignment is worth 20% of the course and will be weighted on one group (50%) and one individual (50%) component as follows:

<b>Group component</b>		<b>Individual component</b>	
Knowledge	10%	Knowledge	10%
Analysis, Synthesis, & Application	15%	Analysis, Synthesis, & Application	10%
Critical Thought	10%	Critical Thought	10%
Organization	10%	Organization	5%
Communication	5%	Communication	15%

All presentations will be scheduled for a half-day **before the Holiday Break on 13 December 2018** and external community members for the plans will be invited to participate. Each group will present no longer than 30 minutes (20 min presentation + 10 min question/discussion) but should be available to discuss their plan after the session, either with fellow classmates or those community members who have been able to participate.

### **Assignment 4: Urban Forest Management Plan – Final Report (35%)**

## Objectives:

Examine the diverse aspects of urban forest conservation through the development of a strategic urban forest plan for a community.

## The Task:

Students will work in groups of 3-5 to develop a 20-year plan for a real community of their choice. Since it is important that as many concepts of urban forest conservation as possible are integrated into such a plan, the term community here can mean a neighbourhood, a town, a city, as well as a specific site (e.g. a park, woodlot, heritage property, etc.).

The plan should follow the outline prepared by Kenney *et al.* (2011) and must include (a) a 20-year strategic plan, (b) four 5-year management plans, and (c) the first Annual Operating Plan (AOP). Depending on the scenario, the proposed annual operating plan may be for the first year of the first 5-year management plan, or for the second or third year of the plan to represent a more typical operating year of a maturing plan. The annual operating plan must include a budget. The objective of the budget is to help identify how costs should be assigned and give some feeling for the funds required to accomplish what is planned in at least part. Communication with the 'community manager' or other experts may be required to obtain realistic values for some operations.

The plan does not formally require an urban forest inventory to be conducted, however if an inventory data set is available for a given community, then the plan could be augmented by preliminary inventory analysis. If the selected community does not have an inventory, then the development of such an inventory would be an important aspect of the plan.

The final plan should be submitted as a written Report that is thorough and covers the plan effectively (ca. 25-30 pages single-spaced, depending on the number of figures and appendices attached). Please submit in **electronic (PDF) format before midnight 16 December 2018 on Quercus**. The final document must contain all the necessary maps and tables needed to support the text. References must be provided (e.g., Smith et al. 2004).

## Evaluation:

You may identify the sections that were written individually. If no such identification is present, the assignment will be evaluated entirely as a group.

The assignment is worth 35% of the course and will be weighted on one group (70%) and one individual (30%) component as follows:

<b>Group component</b>		<b>Individual component</b>	
Knowledge	15%	Knowledge	10%
Analysis, Synthesis, & Application	20%	Analysis, Synthesis, & Application	10%
Critical Thought	10%	Critical Thought	5%
Organization	10%	Organization	5%
Communication	5%	Communication	10%

## COURSE AND UNIVERSITY POLICIES

### Assignments:

Unless stated otherwise, assignments are to be submitted electronically through Quercus at midnight on the due date. Late assignments will be penalized 10% per weekday up to a maximum of 40%, unless discussed with the instructor. Assignments should be single-spaced, 12pt Times Roman font.

### Grading Standards:

The University of Toronto grading scale for graduate students will be used for marking.

Percentage	Letter Grade	Grade Definition	
90-100	A+	Excellent	Strong evidence of original thinking; good organization; capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive knowledge base.
85-89	A		
80-84	A-		
77-79	B+	Good	Evidence of grasp of subject matter, some evidence of capacity and analytic ability; reasonable understanding of relevant issues; evidence of familiarity with literature.
73-76	B		
70-72	B-		
67-69	C+	Failure	Little evidence of familiarity with subject matter and some evidence that critical and analytic skills have been developed.
63-66	C		
60-62	C-		

### Academic Integrity:

The University of Toronto's Code of Behaviour on Academic Matters, which all students are expected to know, says it is an offence to:

- Use someone else's ideas or words in their own work without acknowledging that those ideas/words are not their own with a citation and quotation marks, i.e. to commit plagiarism.
- Include false, misleading or concocted citations in their work.
- Provide unauthorized assistance to another student including showing them completed work.
- Submit their own work for credit in more than one course without permission.
- Falsify or alter any documentation required by the University. This includes, but is not limited to, doctor's notes.
- Use or possess an unauthorized aid in any test or exam.



Thus, plagiarism is unacceptable and will be penalized according to [University of Toronto policy](#). Assistance in avoiding plagiarism can be found [here](#) (Ctrl + click to follow). Reports may be examined using TURNITIN software.

### **Attendance:**

It is expected that all students attend lectures, as they are chosen and designed to help with the course assignments. If a student cannot make it to a lecture, it is expected that the student is getting updates from classmates. Whenever possible, PowerPoint presentations of lectures will be uploaded to Quercus, but be advised that this material alone will often not suffice to understand what was taught in the class. It is not the instructor's nor the TA's responsibility to inform students about a lecture's content when a lecture was missed.

All students are expected to appear some minutes ahead of the lecture, so that the lecture can start on time. This is especially important for guest lectures, as it is a sign of disrespect to the guest lecturer if students arrive late and thus disturb the lecture. To avoid lateness due to time required to change rooms from a previous lecture, the course will start every week at 4:10pm (which means that you are required to arrive BEFORE that time).

### **Communication with the Instructor and the TA:**

You can communicate with the course instructor either in person before or after the lecture, or by email (see email address above). Students can write to the instructor or TA for a meeting any time, if necessary. The TA will not attend all lectures but will generally be able to answer emails and arrange meetings by email, if needed. For all communication by email, it is advised to use your official University of Toronto account (e.g., @mail.utoronto.ca), as sometimes emails coming from other email providers will end up in the spam folder.

### **Accessibility needs:**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or Accessibility Services at <http://www.studentlife.utoronto.ca/as>.

### **Student support:**

In order to excel in this course, students must keep up with the assignments and readings, as well as attend lectures. As outlined above, the course is designed to help students achieving excellency, when all instructions are followed. If in doubt about the understanding of any course content, please contact the TA or course instructor. Because writing is a key-component in the assignments of this course, please refer to the University of Toronto's Writing website (<http://advice.writing.utoronto.ca/>).

### **Health and safety:**

The course follows the [University of Toronto's Health and Safety Policy](#) and students are responsible for being safe in compliance with this policy.

### **Mental health and wellness:**

As a university student, you may experience a range of health and/or mental health issues that may result in significant barriers to achieving your personal and academic goals. The University of Toronto offers a wide range of free and confidential services and programs that may be able to assist you and you should seek out these resources early and often.

Student Life Website: <http://www.studentlife.utoronto.ca>

Health and Wellness Website: <http://studentlife.utoronto.ca/hwc>

If, at some point during the year, you find yourself feeling distressed and in need of more immediate support, visit the Feeling Distressed Webpage:

<http://www.studentlife.utoronto.ca/feeling-distressed>, for more campus resources.

All students in the Faculty of Engineering have an Academic Advisor who can advise on academic and personal matters. You can find your department's Academic Advisor here:

<http://undergrad.engineering.utoronto.ca/advising-support-services/academic-advising/>

Immediate help is available 24/7 through Good2Talk, a post-secondary student helpline at 1-866-925-5454.

### **Acknowledging Toronto's First Peoples:**

Toronto is a city of immigrants and has been for hundreds of years and has been a gathering site for humans for over 15,000 years. This sacred land is the territory of the Huron-Wendat and Petun First Nations, the Seneca, and most recently, the Mississaugas of the Credit River.

The territory was the subject of the Dish with One Spoon Wampum Belt Covenant, a coming together of the Iroquois and Ojibwe Confederacies and other allied nations to peaceably share and care for the resources around the Great Lakes.

Today, Toronto is still a meeting place for Indigenous people from across Turtle Island, and immigrants, both new and old, from across the world. We are grateful to have the opportunity to work in the community, and on this territory.